UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/679,210	10/04/2000	Donald F. Gordon	19880-28.1	8170

26291 7590 06/20/2005

MOSER, PATTERSON & SHERIDAN L.L.P.
595 SHREWSBURY AVE, STE 100
FIRST FLOOR
SHREWSBURY, NJ 07702

EXAMINER	
SHANG, ANNAN Q	

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/679,210	DONALD GORDON	
	Examiner	Art Unit	
	Annan Q. Shang	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-15 and 18-23, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Eyer et al (6,401,242)** in view of **Hendricks et al (6,463,585)** and further in view of **Chaney et al (5,515,106)**

As to claim 1, note the **Eyer et al** reference figure 2, disclose method and apparatus for delivering an Interactive Program Guide (IPG) data, to Integrated Receiver Decoders (IRDs) in a decoder population and further disclose a system for providing IPG, comprising:

the claimed a plurality of encoding units operative to encode a plurality of IPG pages and generate a plurality of streams..." is met by MPEG-2 Encoders 1-N or 220-230 (fig. 2, col. 5, lines 44-67 and col. 8, lines 16-32), which are operative to encode National or Global-IPG data and Regional or Local-IPG data "a plurality of IPG pages" and generate bundles of IPG data and Audio/Video (A/V) data "a plurality of streams," where bundles of IPG data and A/V data is assigned a respective packet identifier (PID) (col. 10, lines 55-65 and col. 15, lines 54-63); note also col. 5, line 62-col. 6, line 12 and col. 7, lines 9-26 of Eyer et al (5,801,753) which is incorporate by reference);

the claimed "at least one transport stream generator operatively coupled to the plurality of encoding units..." is met by MUX/MOD 250 (col. 8, lines 29-32), which is operatively coupled to MPEG-2 Encoders 1-N, the MUX/MOD 250 operative to receive the multiplex selected ones of the bundles of IPG data and A/V data from one or more MPEG-2 Encoders 1-N into one or more transport streams; and

the claimed "a session manager coupled to the at least one transport stream generator..." is met by IPG Translator 220 and Subscriber Authorization Center (SAC) 240 (col. 6, lines 13-19 and col. 8, lines 6-28), which is coupled to MUX/MOD 250 and operative to direct each MUX/MOD 250 to generate bundles of IPG data and A/V data "one or more transport streams" based on interest, regional area or geographical area, for transmission via Transmitter 110; note that IPG Translator 220 receives configuration data, group data such as, name, affiliation, etc., to group the IPG-data based on interest, preferences, geographical, regional, local data.

Eyer fails to explicitly teach, generating IPG data based on usage.

However, note the **Hendricks et al** reference figures 1, 19-22, disclose targeting advertisement using television delivery system, where an Operation Center (OC) 202 and a Headend 208 and its Network Controller 214 (col. 13, lines 8-27 and col. 14, lines 12-26), generates group assignment plan and assigns television terminals to group and dynamically generates customizes menus on the fly based on the user interaction "usage" to previous menus (fig. 17, col. 16, lines 55-67, col. 19, lines 49-62, col. 20, lines 10-18, lines 36-40 and col. 55, line 64-col. 56, line 14).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Hendricks into the system of Eyer to provide user-friendly or on-demand interactive program guide to the user, to enable the user to navigate through as desired to retrieve programs.

Eyer as modified by Hendricks, fail to explicitly teach where each IPG page is associated with a stream and is assigned a respective packet identifier (PID).

However, note the **Chaney** reference figures 1-2, discloses a method and apparatus for transmitting/receiving a program guide for television services where the program guide information is formed as a master guide and a special guide, each with a stream and assigned a respective PID and where one carries information for several hours and the other carries information for the next 30 days (col. 2, line 61-col. 3, line 6, lines 37-54 and col. 4, line 59-col. 5, line 55).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Chaney into the system of Eyer as modified by Hendricks to provide each guide with a respective PID to enable the receiver to identify the guides, assemble each respective guide information, and update the guide information accordingly.

As to claim 2, the claimed "a bandwidth manager..." is met by IPG Translator 220 and SAC 240 (col. 6, lines 13-19 and col. 8, lines 6-28), which is coupled to MUX/MOD 250 and operative to direct each MUX/MOD 250 to generate bundles of IPG data and A/V data "one or more transport streams" based on interest, regional area or geographical area, assigning IDs and different rates (col. 17, line 49-col. 18, line 7) for

the bundles and using various parameters for delivering of bundles to meet the available bandwidth, for transmission via Transmitter 110 (col. 21, line 66-col. 22, line 7), but fails to explicitly teach monitoring usage of IPG data and reporting to the Headend.

However, **Hendricks,** teaches Headend Controller 214, which monitors usage of IPG menus, reports to OC 202 or HE 208, and generates menus on the fly based on usage to the user(s) (fig. 17, col. 16, lines 55-67, col. 19, lines 49-62 and col. 55, line 64-col. 56, line 14).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Hendricks into the system of Eyer to monitor the IPG menu usage at the terminals and dynamic modify the IPG menus based on the usage and on-demand interactive program guide to meet the users' request, and further provide user-friendly menus, which enables the user to navigate through as desired, to retrieve programs.

As to claim 3, Eyer further discloses where the plurality of MPEG-2 Encoders 220-230 are operative to encode only once each IPG page to be transmitted from the least MUX/MOD 250 (col. 6, lines 13-19 and col. 8, lines 6-32).

As to claims 4 and 5, Eyer fails to explicitly teach dynamically adjusting based on demands from a neighborhood being served by the transport stream generator.

However, **Hendricks** further teaches dynamically adjusting Headend Modulators based on demands from a geographical region being served by the transport stream generator or Modulator (col. 19, lines 49-62 and col. 55, line 64-col. 56, line 14).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Hendricks into the system of Eyer to dynamically adjust based on demands to better provide the needed services to the users.

As to claims 5-8, Eyer fails to explicitly teach where the IPG Translator 220 and SAC 240 "session manager" directs a particular transport stream generator to generate an additional transport stream as usage increases and exceeds the capacity of currently transmitted transport stream(s), if the number of streams to transmitted by the particular transport stream generator exceeds the capacity of currently transmitted stream(s), if a required number of PIDs exceeds a maximum number of PIDs supported by the current transmitted transport stream(s) and tear down a transport stream if usage falls below the capacity of remaining transport streams.

However, **Hendricks** further teaches an operation center (OC) 202, in communication with a plurality of Headend Controllers (HC) 214 of Headend 208, and Headend(s) 208 monitors the interactivities "usage" of various Set-top Terminals 220 located in different geographical areas or regions, and dynamically instructs the appropriate modulators or transport streams generators and allocates bandwidth as demand increases, decreases, etc., (col. 19, lines 49-62 and col. 55, line 64-col. 56, line 14), which meets the claimed "directs a particular transport stream generator to generate an additional transport stream as usage increases and exceeds the capacity of currently transmitted transport stream(s), if the number of streams to transmitted by the particular transport stream generator exceeds the capacity of currently transmitted

stream(s), if a required number of PIDs exceeds a maximum number of PIDs supported by the current transmitted transport stream(s) and tear down a transport stream if usage falls below the capacity of remaining transport streams."

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Hendricks into the system of Eyer to dynamically adjust bandwidth based on demands to better provide the needed services to the users.

As to claim 9, Eyer further discloses each MUX/MOD 250 "TS generator" is operative to serve a respective group of terminals within a particular neighborhood (col. 3, lines 18-35, col. 7, lines 7-15 and col. 22, lines 17-29).

As to claim 10, Eyer further discloses where MUX/MOD 250 is operable to provide differentiated IPG for different regions or geographical areas via the one or more TS generated by the MUX/MOD 250 (col. 10, lines 10-48).

As to claim 11, Eyer further discloses where a plurality of transport streams are generated by a particular MUX/MOD 250, and where each of the plurality of TSs includes a respective set of IPG pages for different regions or geographical areas (col. 10, lines 10-48).

As to claim 12, Eyer further discloses where the plurality of transport streams from the particular transport stream generator, include overlapping sets of IPG pages (col. 7, lines 16-45).

As to claim 13, Eyer further discloses where each the plurality of transport streams from a particular transport stream generator includes one or more common IPG pages (col. 6, lines 1-12 and col. 10, lines 10-38).

As to claim 14, Eyer further disclose where the bundles of Global-IPG and Local-IPG "sets of IPG pages" for the plurality of transport streams from the transport stream generator are organized to reduce likelihood of switching between transport streams at IRDs 130 or 300 (col. 6, lines 1-12 and col. 10, lines 10-38).

As to claim 15, Eyer further discloses where the Global-IPG and Local-IPG pages for the plurality of transport streams from the particular transport stream generator are organized to increase likelihood of PID transitions within the same transport stream (col. 10, lines 10-38).

As to claim 18, note the **Eyer et al** reference figure 2, disclose method and apparatus for delivering an Interactive Program Guide (IPG) data, to Integrated Receiver Decoders (IRDs) in a decoder population and further disclose a system for providing IPG, comprising:

the claimed "at least one transport stream generator..." is met by MUX/MOD 250/MPEG-2 Encoder 1 or 220 (MUX/MOD/MPEG-En 250/220) (col. 8, lines 29-32), which includes MPEG-2 Encoder 1 or 220 "at least one encode unit" operative to encode National or Global-IPG data and Regional or Local-IPG data (IPG-data) and Audio/Video (A/V) data "a plurality of IPG pages" and generate a bundles of Global-IPG data, Local-IPG data and A/V data "a plurality of streams," (fig. 4, col. 10, lines 10-38) where MUX/MOD/MPEG-En 250/220 operatively generates bundles of Global-IPG data,

Local-IPG data and A/V data "one or more transport streams" having included therein the Global-IPG data, Local-IPG data and A/V data for the Global-IPG data and Local-IPG data "IPG pages" (col. 5, line 44-col. 6, line 12 and col. 15, lines 54-63);

the claimed "a session manager coupled to the at least one transport stream generator..." is met by IPG Translator 220 and Subscriber Authorization Center (SAC) 240 (col. 6, lines 13-19 and col. 8, lines 6-28), which is coupled to MUX/MOD 250 and operative to direct each MUX/MOD 250 to generate bundles of IPG data and A/V data "one or more transport streams" based on interest, regional area or geographical area, for transmission via Transmitter 110; note that IPG Translator 220 receives configuration data, group data such as, name, affiliation, etc., to group the IPG-data based on interest, preferences, geographical, regional, local data.

Eyer fails to explicitly teach, generating IPG data based on usage.

However, note the **Hendricks et al** reference figures 1, 19-22, disclose targeting advertisement using television delivery system, where an Operation Center (OC) 202 and a Headend 208 and its Network Controller 214 (col. 13, lines 8-27 and col. 14, lines 12-26), generates group assignment plan and assigns television terminals to group and dynamically generates customizes menus on the fly based on the user interaction "usage" to previous menus (fig. 17, col. 16, lines 55-67, col. 19, lines 49-62, col. 20, lines 10-18, lines 36-40 and col. 55, line 64-col. 56, line 14).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Hendricks into the system of Eyer to

provide user-friendly or on-demand interactive program guide to the user, to enable the user to navigate through as desired to retrieve programs.

Eyer as modified by Hendricks, fail to explicitly teach where each IPG page is associated with a stream and is assigned a respective packet identifier (PID).

However, note the **Chaney** reference figures 1-2, discloses a method and apparatus for transmitting/receiving a program guide for television services where the program guide information is formed as a master guide and a special guide, each with a stream and assigned a respective PID and where one carries information for several hours and the other carries information for the next 30 days (col. 2, line 61-col. 3, line 6, lines 37-54 and col. 4, line 59-col. 5, line 55).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Chaney into the system of Eyer as modified by Hendricks to provide each guide with a respective PID to enable the receiver to identify the guides, assemble each respective guide information, and update the guide information accordingly.

As to claim 20, note the **Eyer et al** reference figure 2, disclose method and apparatus for delivering an Interactive Program Guide (IPG) data, to Integrated Receiver Decoders (IRDs) in a decoder population and further disclose a method for providing IPG from a transmission source to a plurality of terminals, the method comprising:

IPG Translator 220, a CATV Headend system, receives configuration data, including associated parameters (col. 8, lines 6-28) from various IRDs 130 or 300

"plurality of terminals" in various regions or geographical areas during setup (col. 4, line 64-col. 5, line 11 and col. 6, line 1-18), determines the current capacity of IPG (National-Global or Regional-Local) data, Audio/Video (A/V) data, etc., "one or more transport streams" (col. 5, line 44-col. 6, line 12) being transmitted for the plurality of IRDs 130 or 300 "terminals;" comparing the configuration data, including associated parameters, etc., from the plurality of IRDs 130 or 300 against the current capacity and dynamically adjusting the number of transport streams to be transmitted to the plurality of IRDs 130 or 300 based on a result of the comparing (col. 10, lines 38-54, col. 11, lines 9-24, col. 17, lines 49-67 and col. 21, line 66-col. 22, line 7).

Eyer fails to explicitly teach monitoring demands from a plurality of terminals and comparing the demands from the plurality terminals and dynamically adjusting the number of transport streams to be transmitted to the plurality of terminals based on a result of the comparing.

However, note the **Hendricks et al** reference figures 1 and 19-22, disclose a viewer interface for a television program delivery system and menu generation and menu selection of television programs, where Headend Controller 214, monitors demands from a plurality of terminals and compares the demands from the plurality terminals and based on the result, dynamically generates on the fly menus and adjusts the number of transport streams to be transmitted to the plurality of terminals to meet the demands of the IPG menus based on the interaction to the IPG (fig. 17, col. 16, lines 55-67, col. 19, lines 49-62, col. 20, lines 10-18, lines 36-40 and col. 55, line 64-col. 56, line 14).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Hendricks into the system of Eyer to monitor the users demands or interaction to provide user-friendly or on-demand interactive program guide to the user, to enable the user to navigate through as desired to retrieve programs.

Eyer as modified by Hendricks, fail to explicitly teach where each IPG page is associated with a stream and is assigned a respective packet identifier (PID).

However, note the **Chaney** reference figures 1-2, discloses a method and apparatus for transmitting/receiving a program guide for television services where the program guide information is formed as a master guide and a special guide, each with a stream and assigned a respective PID and where one carries information for several hours and the other carries information for the next 30 days (col. 2, line 61-col. 3, line 6, lines 37-54 and col. 4, line 59-col. 5, line 55).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Chaney into the system of Eyer as modified by Hendricks to provide each guide with a respective PID to enable the receiver to identify the guides, assemble each respective guide information, and update the guide information accordingly.

Claims 21-23, are met as previously discussed with respect to claims 5-8.

3. Claims 16 and 17, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Eyer et al (6,401,242)** in view of **Hendricks et al (6,463,585)** and further in view of **Chaney et al (5,515,106)** as applied to claims 1 above, and further in view of **McLaren (5,867,208)**.

As to claims 16 and 17, Eyer as modified by Hendricks and Chaney, fail to explicitly teach where the encoding unit, implements slice-based encoding scheme, and picture-based encoding scheme.

However, note the **McLaren** reference figures 1 and 2, discloses an interactive television system, where a Broadcaster Center, includes an Encoder 106, which implements slice encoding and picture encoding scheme to provide video content to subscriber (col. 4, lines 47-67 and col. 11, line 59-col. 12, line 28).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of McLaren into the system of Eyer as modified by Hendricks and Chaney to include slice encoding and picture encoding to allow for scrolling in the picture such that all portions of the picture or IPG can be viewed on the subscriber television.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chaney (5,841,433) discloses digital television system channel guide having a limited lifetime.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Annan Q. Shang** whose telephone number is **571-272-7355**. The examiner can normally be reached on 700am-500pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Christopher S. Kelly** can be reached on **571-272-7331**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC) at 866-217-9197 (toll-free).**

Annan Q. Shang

CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600